

USING THE WAVE SOLDERING PROCESS TO ATTACH MOTHERBOARD CHIPSET HEAT SINKS

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Abstract of the Disclosure

A electronic device and method for extracting heat from a heat producing component having front and back sides, the front side is disposed across from the back side, and the front side is attached to a substrate including multiple holes. A thermal interface material is disposed over the back side of the heat producing component. A
10 heat sink including multiple pins corresponding to the multiple holes in the substrate is disposed over the thermal interface material such that the pins are disposed through the holes. The thermal interface material melts and wets to form a thermal coupling between the back side and the heat sink when passed over pre-heaters of a wave soldering machine. Further, the pins are soldered to form solder joints between the
15 respective pins and the substrate when passed over a solder wave in the wave soldering machine to lock-in the thermal coupling formed during the preheating of the thermal interface material to provide a low-cost thermal solution.

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